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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 09/771,591 | 01/30/2001 | Jong-Sung Kim | 8733.385.00 | 8956 |
| 30827 7590 01/26/2007 MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006 | | | EXAMINER TON, MINH TOAN T | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2871 | |
| SHORTENED STATUTORY PERIOD OF RESPONSE | | MAIL DATE | DELIVERY MODE | |
| 3 MONTHS | | 01/26/2007 | PAPER | |

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/771,591

Applicant(s)

KIM, JONG-SUNG

Examiner

Toan Ton

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onnagawa et al (US 6075582) in view of Kondo et al (US 5598285).

Onnagawa discloses an active matrix LCD comprising (see at least Figures 5-7): a pair of substrates; a pixel electrode and an opposed (counter) electrode formed on one of the substrates; a liquid crystal layer sandwiched between the substrates; an alignment layer formed on each substrate; wherein the pixel and the opposed (counter) electrodes have a zigzag pattern having a plurality of protrusions and indentations.

The limitation not disclosed by Onnagawa is “in-plane-switching (IPS)” (i.e., pixel and counter electrodes formed on the same substrate resulting in parallel field). However, the use of IPS-LCD device is known in the art for achieving advantages such as wide viewing angle (see at least Kondo). Thus, it would have been at least obvious to one of ordinary skill in the art at the time the invention was made to employ pixel and counter electrodes formed on the same substrate resulting in parallel field for achieving advantages such as wide viewing angle.

Onnagawa discloses the protrusions and indentations comprising substantially triangular shape.

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Onnagawa discloses the zigzag pattern of the pixel electrode being substantially the same as the zigzag pattern of the counter electrode (see at least Figure 6-7, i.e., meeting the particular distances as recited in claims 15-16).

The use of a color filter disposed on a counter substrate is common and known in the art for achieving a color display device. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ a color filter disposed on the counter substrate, as common and known in the art, for achieving a color display device

Materials such as polyimide, polyamic acid is common and known in the art for the alignment layer. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ materials such as polyimide, polyamic acid for the alignment layer, as common and known in the art.

The protrusions and indentations comprising other shapes such as substantially trapezoidal shape, substantially rectangular shape would appear to be at least obvious variations (i.e., *not patentably distinct*) to the protrusions and indentations comprising substantially triangular shape.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

A certified translation in English of the priority document is acknowledged.

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Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (571) 272-2303.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

May 26, 2006


TOANTON
PRIMARY EXAMINER